

National Type Evaluation Program
Certificate of Conformance
for Weighing and Measuring Devices

For:

Retail Motor Fuel Dispenser
Digital Computing
Model: AC X X X X X XX
Capacity: See Below
Generic Name: Highline III and Salesmaker Series

Submitted by:

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Standard Features and Options

* See Pages 2 and 3 for an explanation of model numbers and additional notes concerning devices covered by this Certificate.

Capacity:	\$9999.99	Total Price
	999.999	Volume Units
	\$9.999	Unit Price

Highline Series nozzles island-oriented
Salesmaker Series nozzles lane-oriented
"Standard" flow rate: 2 gpm to 13 gpm
Mechanical totalizer value up to 99 999.99 volume units
Battery back-up for up to 72 hours

Options: Customer-select cash/credit by externally attached push-button unit
Satellite units without display heads
Marconi Commerce Systems Inc. customer preset option

Optional Model: RAC X X X X X XX (re-manufactured device)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: December 1, 1999

Gilbert M. Ugiansky, Ph.D.
Chief, Office of Weights and Measures
Issue Date: March 23, 2000

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Marconi Commerce Systems Inc.
Retail Motor Fuel Dispenser
Model: AC X X X X X XX

Model Designation: Specific model designations are identified by the digit positions listed below:

Position 1 - Country of Origin

A = USA

Position 2 - Electronic Series

C = Standard Electronics

Position 3 - Type of Unit

- 1 = Single Hose Pump
- 2 = Dual Hose, Single Product Pump
- 3 = Dual Hose, Dual Product Pump
- 4 = Single Hose Dispenser
- 5 = Dual Hose, Single Product Dispenser
- 6 = Dual Hose, Dual Product Dispenser
- 7 = Single Hose Dispenser, Master/Satellite Combination for "High", "Super High", and "Ultra High" Gallonage Models

Position 4 - Classification

- 0 = Stand-alone
- 1 = Readout, Transact I/II
- 2 = Readout, Transact HV
- 3 = Preset, Transact HV
- 4 = Key Control
- 5 = Transact HV Value-Analyzed Readout
- 6 = Transact HV Value-Analyzed Preset
- 7 = Readout, Mini-T
- 8 = Readout, Transact T-11/T-12
- 9 = Preset, Transact T-11/T-12

Position 5 - Special Features

- 0 = None (Standard H-111)
- 1 = Vapor Recovery, H-111
- 2 = None (Standard H-111B)
- 3 = Vapor Recovery, H-111B
- 4 = High Gallonage, H-111B, Non-Vapor Recovery, 1 "B" or "C" Meter per 1 or 2 Hoses, Rating 30/4 gpm
- 5 = Vapor Recovery, High Gallonage, H-111B
- 6 = Standard Handle Operation, H-111B
- 7 = Standard Handle Operation, Vapor Recovery, H-111B
- 8 = Super High Gallonage, H-111B (or Salesmaker), Non-Vapor Recovery, 2 "B" or "C" Meters per 1 or 2 Hoses, Rating 40/8 gpm, Electronic Dispensers Only
- 9 = Ultra High Gallonage, H-111B (or Salesmaker), Non-Vapor Recovery, LC Meter, Model P9550 or P9560 (M-5), Rating 60/12 gpm

Position 6 - Display

- 1 = 5 Digit (XX.XXX Volume Units)
- 2 = 5 Digit (XXX.XX Volume Units)
- 3 = No Display (Satellite Unit)

Position 7 - Major Revision

- A = Modular Electronics
- No A = Pre-modular Electronics
- D = Electronic Meter Calibration for Ultra High Gallonage ("9" in Code Position 5)
Dispensers Using LC Meter Model P9560 (M5)

Position 8 - Design Style

- Blank = Highline 111B
- S or S1 = Salesmaker-1 (One Hose)
- S2 = Salesmaker-2 (Two Hoses)
- SP = Salesmaker Series, Overhead Plumbing for High Hose Attachment

Marconi Commerce Systems Inc.
Retail Motor Fuel Dispenser
Model: AC X X X X X XX

Application: For use in dispensing retail motor fuel. The "High", "Super High", and "Ultra High" gallonage models may have satellite configurations and are approved for DIESEL fuel only. Approved for use with Stage II vapor recovery equipment when the systems and components are certified, and the dispensers comply with the zero-set-back interlock requirements. May be used with approved, compatible equipment.

NOTE: The Highline and Salesmaker Series may have satellite configurations and are approved for DIESEL fuel only in "High", "Super High", and "Ultra High" gallonage models. "High" gallonage units use one "B" or "C" meter and are rated up to 30 gpm. "Super High" gallonage units use two "B" or "C" meters in parallel and are rated up to 40 gpm. "Ultra High" gallonage units use one LC meter, Model P9550 (M-5), and are rated up to 60 gpm.

Identification: The identification badge is located on the side of the dispenser, island-oriented.

Sealing: The meter calibration is accessed by removing a metal pin from the meter calibration wheel and turning the calibration wheel to increase or decrease the delivery amount. Access to the meter calibration is prevented by threading a wire security seal through a hole in the metal pin, through holes in the calibration wheel on both sides of the pin, and through a hole in the center of the meter calibration wheel.

For Ultra High gallonage dispensers ("9" in code position 5) using electronic meter calibration (D in code position 7) and LC meter P9560, a "calibration" switch is located behind a locked panel on the front of the dispenser adjacent to the display. A hinged metal cover is fitted over the calibration switch. The cover must be raised before the calibration switch can be raised to the "calibrate" mode. Access to the calibration mode is prevented by threading a wire security seal through holes in the hinged cover and a hole in a metal tab below the cover. The angle of the closed cover prevents the calibration switch from being raised to the calibration mode position when the cover is properly sealed.

Operation: An Ultra High gallonage dispenser with the electronic meter calibration option is calibrated by first moving the calibration switch into the calibrate mode and using the keypad adjacent to the calibration switch, entering a calibration code and the volume of the volumetric test measure to be used. Product is dispensed into the test measure, and the delivery error is determined in cubic inches. The error in cubic inches is entered into the keypad, and the calibration switch is returned to the normal operating position.

The Ultra High gallonage dispenser with the electronic meter calibration option is equipped with a memory chip which contains a battery. This enables calibration information to be maintained during the servicing of the unit without loss of the latest calibration information

Test Conditions: This Certificate is issued based upon information provided by the manufacturer to change the name of the company from the previous name, Gilbarco Inc., and to transfer ownership of the device covered under Certificate of Conformance Number 88-226A5 to Marconi Commerce Systems Inc. This Certificate is also issued to include the optional Model RAC X X X X X XX (a re-manufactured device) that was originally covered under the multi-Certificate of Conformance Number 92-197A1. All institutional knowledge of the previous owner has been transferred to the new company. Test conditions for Certificate of Conformance Numbers 88-226A5 and 92-197A1 and the preceding Certificates are listed below for reference.

Certificate of Conformance Number 88-226A5: This Certificate superseded Certificate of Conformance Number 88-226A4 and was issued to change capacities to cover either 5 or 6 digits for price and volume.

Marconi Commerce Systems Inc.
Retail Motor Fuel Dispenser
Model: AC X X X X X XX

Test Conditions (Continued):

Certificate of Conformance Number 88-226A4: This Certificate superseded Certificate of Conformance Number 88-226A3 and was issued to correct the model number of the meter used with the Ultra High gallonage dispenser. The LC Model P9560 (M5) meter was used during the type evaluation of the Ultra High gallonage dispenser.

Certificate of Conformance Number 88-226A3: This Certificate superseded and replaced Certificate of Conformance Number 88-226A2 and was issued to include an option for electronic meter calibration of the Ultra High gallonage Model dispenser and the Gilbarco Inc. customer preset option (See NTEP Addendum Sheet issued 06/21/90). An Ultra High gallonage dispenser using the Liquid Controls Model P9560 meter and equipped with the electronic meter calibration package was examined initially at the manufacturer's facility in a test stand. A similar unit was installed in a field installation in a master/satellite application. The field unit was examined initially for operation and accuracy, and examined again following a throughput of 79 000 gallons. Test drafts of 100 gallons were run at flow rates ranging from 13 gpm to 56 gpm and using different combinations of the master and satellite dispensers. Test results were found to be within applicable tolerance values.

Certificate of Conformance Number 88-226A2: This Certificate superseded Certificate of Conformance Number 88-226A. The original evaluation of these device series was performed in California in 1979 and 1980. Since then, several updates have been issued to reflect model designation revisions. The most recent additions of the "High", "Super High", and "Ultra High" gallonage configurations were evaluated by the National Institute of Standards and Technology in 1988. Test drafts of 100 gallons were taken at various flow rates initially and approximately 30 days later following 40 000 gallons throughput. The devices were tested with master and satellite dispenser configurations.

Certificate of Conformance Number 88-226A: This Certificate was issued as a result of additional testing performed on the "C" meter used in the "High" gallonage dispensers in the Highline Series. Certificate of Conformance Number 88-003.A2 was issued to cover a flow rate of up to 30 gallons per minute for a single "C" meter.

The "C" meter was installed in a "Super High" gallonage dispenser Model AC 4982A with satellite Model AC 4093 for purposes of the evaluation. Testing included flow rates of 12, 13, 18 and 27 gallons per minute using the master and satellite alone or in combination. The dispenser was tested initially and again approximately 30 days later following a throughput of 46 000 gallons of diesel fuel. In order to achieve a flow rate of 30 gallons per minute, it was necessary to use a rater submerged pump of five horsepower and maintain 40 psi in the system.

Certificate of Conformance Number 88-226: This Certificate superseded Certificate of Conformance Numbers 88-002 ("Ultra High" gallonage dispensers), 88-022 ("Super High" gallonage dispensers), and 88-022A and was issued to consolidate the models in this series onto a single Certificate of Conformance. This Certificate was issued based on testing performed in conjunction with Certificate of Conformance Numbers 88-002, 88-022, and 88-022A. Initial examinations were performed for each device ("Super High" and "Ultra High" gallonage dispensers) and repeat examinations were performed approximately 30 days later following a throughput of 40 000 gallons. Test drafts of 100 gallons were taken at various flow rates and the results found to be within acceptance tolerance values. The devices were tested with master and satellite configurations

Certificate of Conformance Number 92-197A1: This Certificate superseded Certificate of Conformance Number 92-197 and was issued to change capacities to cover either 5 or 6 digits for price and volume.

Marconi Commerce Systems Inc.
Retail Motor Fuel Dispenser
Model: AC X X X X X XX

Test Conditions (Continued):

Certificate of Conformance Number 92-197: This Certificate was issued to list Gilbarco retail motor fuel dispensers which are remanufactured within company-owned facilities. This Certificate was in addition to the original Certificates of Conformance. The manufacturer certifies that rebuilt equipment is cleaned, inspected, refurbished and tested, and any component or part such as meters (replacement meters are new), pulsers, displays, etc., not meeting specifications is rejected and replaced. Operation and performance are not altered.

The results of the evaluations indicate the dispensers comply with applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1999 Edition

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